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IS 3345 (1989): Sports Nets [PCD 22: Sports Goods]



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“Knowledge is such a treasure which cannot be stolen”

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IS 3345 : 1989

Indian Standard
SPORTS NETS — SPECIFICATION
(First Revision)

भारतीय मानक
खेलों में काम आने वाले जाल
(पहला पुनरीक्षण)

UDC 685.63 : 677.076.732/736

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NEW DELHI 110002

December 1989

Price Group 2

FOREWORD

This Indian Standard (First Revision) was adopted by the Bureau of Indian Standards on 28 April, 1989, after the draft finalized by the Sports Goods Sectional Committee had been approved by the Consumer Products and Medical Instruments Division Council.

This standard was first issued in 1965. It has now been revised to take into account of the comments received on the standard from time to time. References in the standard have also been updated.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test, shall be rounded off in accordance with IS 2 : 1960 'Rules for rounding off numerical values (*revised*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

Indian Standard

SPORTS NETS — SPECIFICATION

(First Revision)

1 SCOPE

This standard covers requirements for nets for lawn tennis, badminton, table tennis, volleyball, tenikoit, basketball, cricket practice, football goals and hockey goals.

2 REFERENCES

IS No.	Title
IS 177 : 1977	Specification for cotton drills (<i>third revision</i>)
IS 188 : 1980	Specification for cotton poplin (<i>second revision</i>)
IS 1424 : 1983	Specification for cotton canvas (<i>third revision</i>)
IS 1895 : 1982	Specification for cotton <i>NEWAR</i> (<i>second revision</i>)
IS 2266 : 1977	Specification for steel wire ropes for general engineering purposes (<i>second revision</i>)

3 MATERIALS

3.1 The nets shall be manufactured from cord made of good quality cotton yarn of 60 tex (10 s), 60 tex \times 2 (10 s/2) or 60 tex \times 3 (10 s/3) soft hemp or polyethylene, as required by the purchaser.

3.2 The rope used with nets shall be made from good quality cotton yarn of 60 tex (10 s) or manila or polyethylene or nylon, as required by the purchaser.

3.3 The wire rope for use with lawn tennis nets shall be of 8 mm diameter conforming to any construction of IS 2266 : 1977.

3.4 The material for the hems for different nets shall be as given below:

Net	Material
Lawn tennis	<i>NEWAR</i> conforming to IS 1895 : 1982 or plastics material of breaking strength not less than 288 kgf
Badminton	Good quality cotton or artificial fibre tape

Net

Tenikoit

Volleyball

Table tennis

Material

Good quality *MARKIN* or *NEWAR* conforming to IS 1895 : 1982

Canvas conforming to Variety No. 4 of IS 1424 : 1983, or drill conforming to Variety No. 1 of IS 177 : 1977, or *NEWAR* conforming to IS 1895 : 1982, or good quality *MARKIN*

Poplin conforming to IS 188 : 1980 or good quality cotton tape

4 REQUIREMENTS

4.1 The nets shall meet the requirements given in Table 1.

4.2 The tape of the material specified in 3.4 shall be doubled over the edge of the net and stitched properly. The width of the hem after stitching shall be as given in Table 1. The nets for lawn tennis and badminton shall be hemmed at the top only. The nets for volleyball, tenikoit and table tennis shall be hemmed both on top and bottom edges.

4.3 The knots in the netting shall grip properly and shall not jump back or slip during use.

4.4 The colours of different nets shall be as shown in Table 1. It shall be of uniform shade and shall not fade during the reasonable life of the nets.

4.5 Side Bands for Volleyball Nets

Tapes of white material, 50 mm wide and 1 m long shall be fastened, one on each side of the net perpendicular to the intersection of the respective side line and to the axis of the central line. Both side bands shall be considered as part of the net.

4.6 Antennas for Volleyball Nets

The antennas shall be flexible rods made of fibre glass or similar material, 1.80 m long and 10 mm in diameter. The antennas shall be marked with 100 mm bands of contrasting colours, preferably red and white. One antenna each is fastened on to the outer edge of each vertical side band extending 0.80 m above the top of the net. They are considered part of the net and mark its side limits.

Table 1 Requirements of Nets

(Clauses 4.1, 4.2, 4.4 and 7.3.1)

Sl No.	Characteristic	Lawn Tennis	Bad-minton	Table Tennis	Volley ball	Tenikoit	Basket-ball	Cricket Practice	Football Goals	Hockey Goals
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
i)	Length, m	10.06 (singles) 12.8 (doubles)	5.2 (singles) 6.4 (doubles)	5.8	9.5	5.5 to 6.1	0.40	18.3 or 12.8	7.3	3.7
ii)	Width of net, m	1.1	0.76	0.15	1.0	0.45 to 0.61	0.45 dia*	2.4	3.0	3.0
iii)	Width of hem, mm	50 to 60	75	13 to 19	50	25 to 50	—	—	—	—
iv)	Size of mesh, mm	35 to 45 with minimum 3 ply	15 to 20	7.5 to 12.5	100	65 to 75	100	25 to 38	100	25 to 38
v)	Circumference of cord of net, mm	9.5 to 11	6 to 7	—	9.5 to 11	9.5 to 11	9 to 11	9.5 to 11	9.5 to 11	9.5 to 11
vi)	Length of rope or wire, m	13.7 (wire)	9.1	2.4	12.8	7.9 (or 8.23)	—	21.0	10.0	4.0
vii)	Circumference of rope, mm	(see 3.3)	19	—	25	24	—	19	19	19
viii)	Colour:									
	a) Net	Black†	Brown or drak brown	Green	Brown, dark brown or black†	Dark brown or black†	White	White or black†	Black†	Black†
	b) Hem	Dark red or white	White	White	White	White	—	—	—	—
ix)	Strength, Min									
	a) Breaking strength of cord in kgf	27	18	9	27	27	36	27	27	27
	b) Breaking strength of rope in kgf	(see 3.3)	41	—	54	68	36	45	45	45

* The net of basketball is suspended from iron rings of 450 mm inside diameter and hangs down in the form of a basket.

† The net is made of cotton yarn, black colour to be imparted by tarring.

5 MARKING

5.1 Each net shall be marked at a suitable place with the manufacturer's name, trade-mark or identification mark and the material used in its manufacture; or a label showing these particulars shall be attached to the net.

6 PACKING

The nets shall be packed as agreed to between the purchaser and the supplier.

7 SAMPLING

7.1 Lot

In any consignment, all the nets of one type, manufactured from the same material and belonging to the same batch of manufacture shall constitute a lot.

7.1.1 Each lot shall be tested separately to ascertain its conformity to the requirements of this standard.

7.2 To ascertain the conformity of the lot to the requirements of this standard, the number of nets to be selected at random shall be in accordance with col 1 and 2 of Table 2.

Table 2 Sample Size and Criteria for Conformity
(*Clauses 7.2 and 7.3.2*)

Number of Nets in the Lot	Sample Size (Number of Nets to be Selected)	Acceptance Number
(1)	(2)	(3)
Up to 25	3	0
26 „ 100	5	0
101 „ 150	8	0
151 „ 300	13	0
301 „ 500	20	1
501 and above	32	2

7.3 Number of Tests and Criteria for Conformity

7.3.1 The nets selected according to 7.2 shall be inspected for all the applicable requirements given in 4 and Table 1

7.3.2 The lot shall be declared as conforming to the requirements of this standard if the number of defective nets, that is those failing in one or more of the requirements, does not exceed the corresponding acceptance number given in col 3 of Table 2.

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Doc : No. CPDC 4 (1797)

Amendments Issued Since Publication

Amend No.	Date of Issue	Text Affected

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